INTRODUCTION

This document makes available certain engineering details of the AUTEC fleet to aid in the development of test plans and other official requirements.

An outboard profile and main deck arrangement drawing is provided for each vessel and, when available, a hold arrangement drawing is included.

Due to routine vessel configuration changes, minor discrepancies with vessel drawings are possible.

All drawings are reduced. A baseline is provided (usually with the outboard profile drawing) that can be used to obtain measurements from any drawing in the series.

CAUTION: Before final plans can be developed, actual engineering specifics must be submitted for detailing and approval through NUWC Code 7006RS and the AUTEC Marine Engineering Department.

ABBREVIATIONS

RE:WL	=	Referenced to Water Line
FLD	=	Full Load Displacement
hp	=	Horsepower per unit

THIS PAGE INTENTIONALLY LEFT BLANK.

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont)

RANGER 192-Foot Ship

HULL NAME PLATE DATA

Navy Hull Registry No. 192UB8701
Hull No. 139 (formerly SEALEVEL 27 and NUSC RANGER)
ABS I.D. No. 8125785
Official No. 636298
Constructed 1981 at McDermott Shipyard
New Iberia, LA
Assigned AUTEC 1989

TYPE OF SUPPORT

- Launch Mk-46, Mk-46 REXTORP, Mk-50, Mk-50 REXTORP, Mk-30, Mk-48, Mk-24, Tigerfish
- Hydraulic A-Frame, aft
- Surface target
- SATS/MAXI-SATS test support
- Submerged 21" torpedo tube
- Surface mounted Mk-32 torpedo tube
- Backhaul support
- Sound source
- OTH test support
- Ramp Recovery System (RRS)
- MUST System foundations
- Quiet ship capability

PERTINENT DATA

Tonnage	300 gross tons
Length	192 ft
Beam	40 ft
Draft at 1659 tons (FLD)	15 ft (See Note 1)
Cargo deck length	110 ft
Cargo deck width	30 ft
Cargo capacity	420 L.T.
Displacement	1659 (FLD), 794 L.T. Light Ship
Mast height	60 ft
Speed	12 knots
Range	6,000 nmi
Accommodations (overnight)	30
Fresh water capacity	12,644 gal with 1500-GPD water maker
Fuel Capacity	68,314 gal

Note 1: Draft includes 3-ft deep fiberglass dome.

Note 2: Cargo loads must be submitted for trim and stability analysis. Cargo loads are reduced by fuel and water requirements and by operating conditions.

SYSTEM CHARACTERISTICS

Engines

Two EMD 12-646-E6 diesels developing 1,500 hp each at 900 rpm.

Fuel consumption	120 gal/hr*
Reduction ratio	3:1

Engines channel cooled.

*Maximum fuel consumption: Two main engines operating at 900 rpm and one generator at 1800 rpm.

SYSTEM CHARACTERISTICS (Cont)

Propellers

Main Propellers: Two 4-bladed Mn. Bronze propellers, 80-inch diameter X 80-inch pitch. 7-3/4-inch diameter shafts with three 8-inch O.D. journals.

Bow Thruster Propeller: 42-inch diameter X 36-inch RH pitch 4-blade Kaplan style.

Electric Power

Two GM 8V-71 diesel generators with paralleling capability producing 180 kW, 480 Vac, 60 Hz, 3 ph each at 1800 rpm.

One GM 4-71 diesel generator (isolated instrumentation generator) producing 75 kW, 450 Vac, 60 Hz, 3 ph at 1800 rpm.

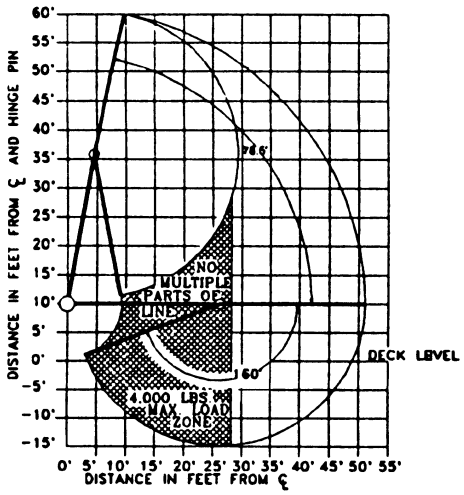
One 100 AMP, 24 Vdc Constavolt.

EQUIPMENT

30" Coring Well
Mk-59 Mod 4 Torpedo Tube
- Maximum vehicle length 324"
- Accommodates 19"-dia or 21"-dia vehicle
- Accommodates extended ADCAP vehicles
- Ejection capability: AOW or swim out
- Torpedo Room Capacity: Eight 21"-dia units (tube blocked)

HP Air Compressors (2)
340-hp Bow Thruster, Model BT-340, Murray & Tregurtha
U-Frame: 10,000 lb. luffing, 20,000 lb. static, 23-ft from deck to center pad-eye, 12'-6" reach over stern, 10-ft clear width
Ramp Recovery System (RRS)
8" Transducer Well
19" Transducer Well (3 with 2 in use)
Mk-32 Mod 17 Torpedo Tube: Mk-46, Mk-50, and ALWT Weapons
Coastal Crane (refer to chart)
EMATT

RATED LOAD IN LBS.		
		DYNAMIC
REACH (FEET)	BOOM ANGLE	
10	78.5	18,000
15	73	12,000
20	66	9,000
25	60	7,200
30	53	6,000
35	46	5,100
40	37	4,500
45	26	4,000
52	0	3,400



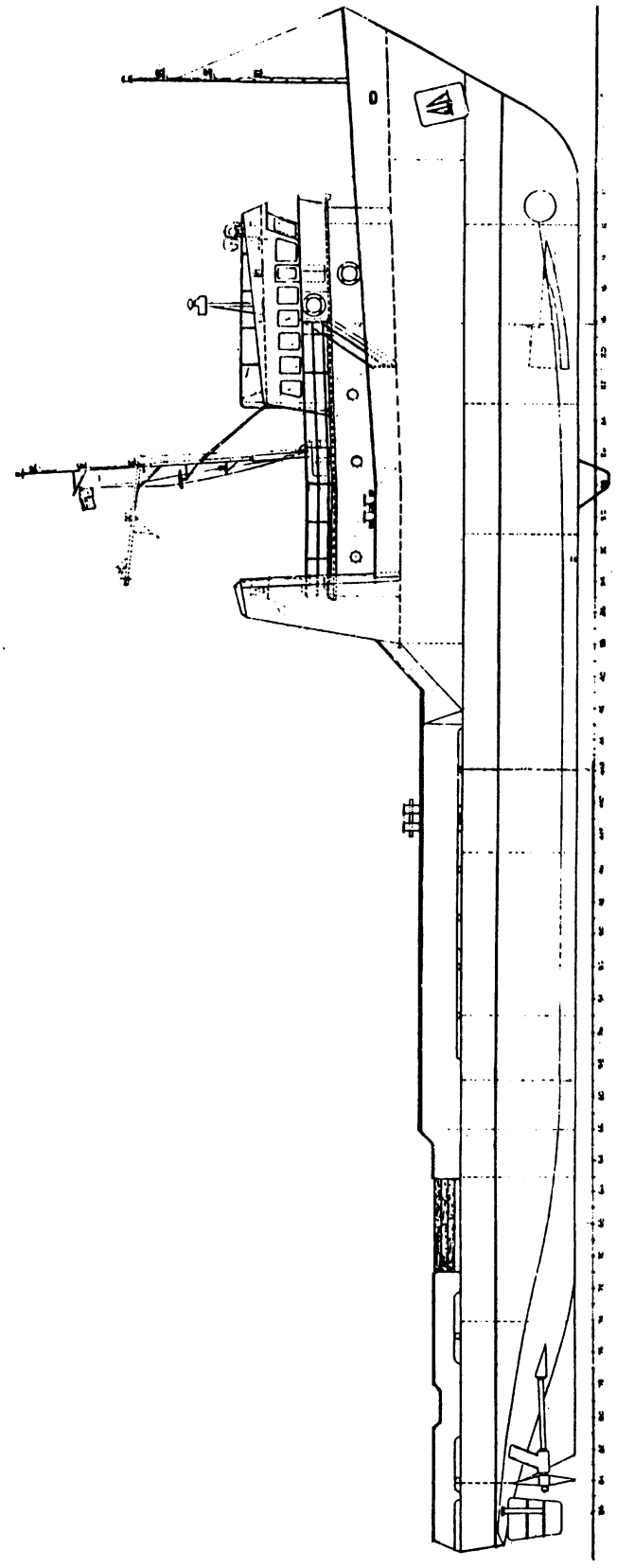
REEVING CHART FOR 5/8"18 X 7 STAINLESS WIRE ROPE BREAKING STRENGTH=31,500 LBS. SAFETY FACTOR OF 5		
PARTS OF LINE		
ONE	TWO	THREE
6,300 LBS.	12,600 LBS.	18,900 LBS.

WINCH CAPACITY:
12,000 LBS. (1ST LAYER)

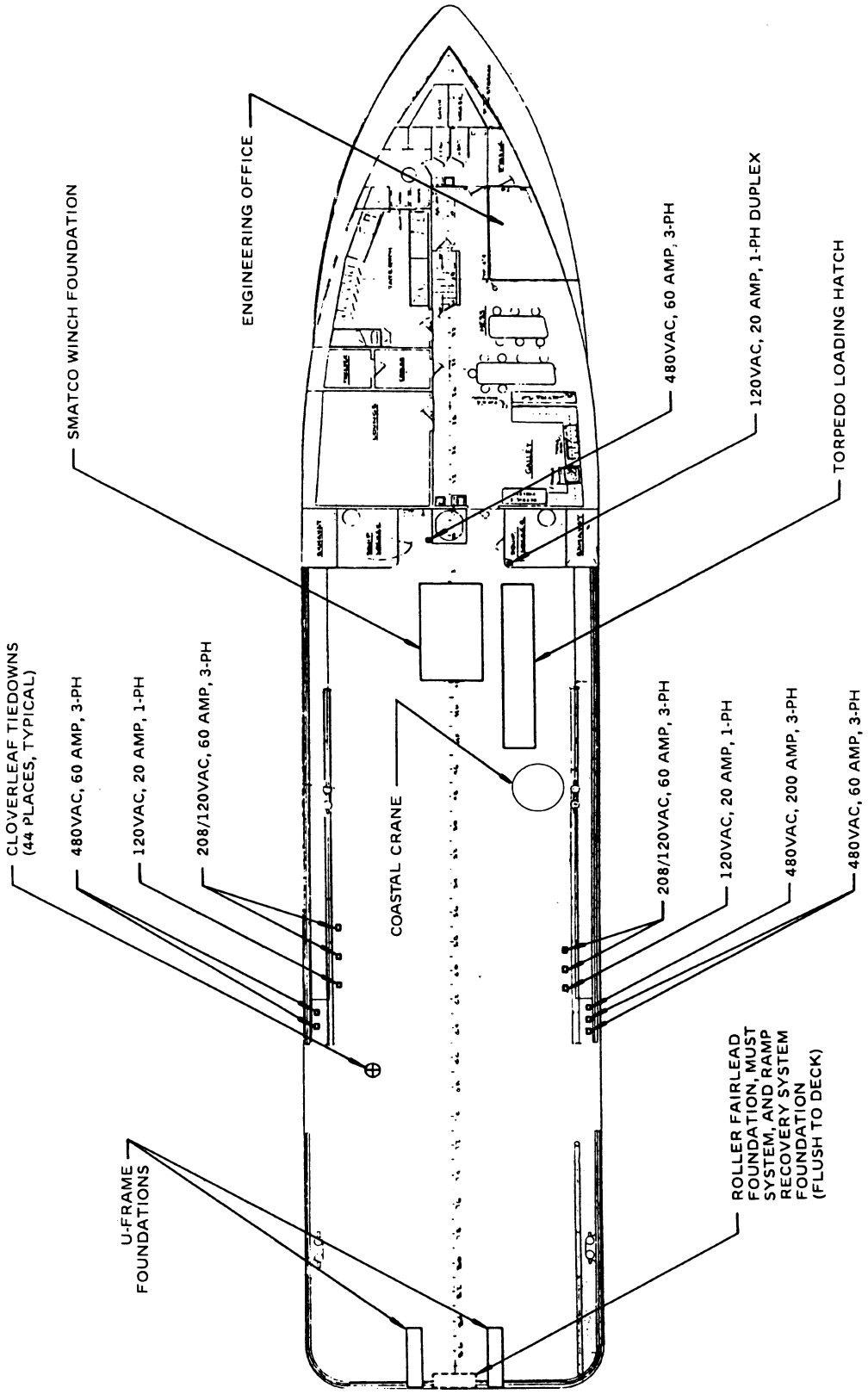
NOTE: ABOVE CHART DOES NOT INCLUDE WEIGHTS OF HOOK BLOCK, WEDGE SOCKET AND CRADLE. TO OBTAIN SWL, THESE WEIGHTS HAVE TO BE DEDUCTED FROM ABOVE VALUES.

MARINE ELECTRONICS

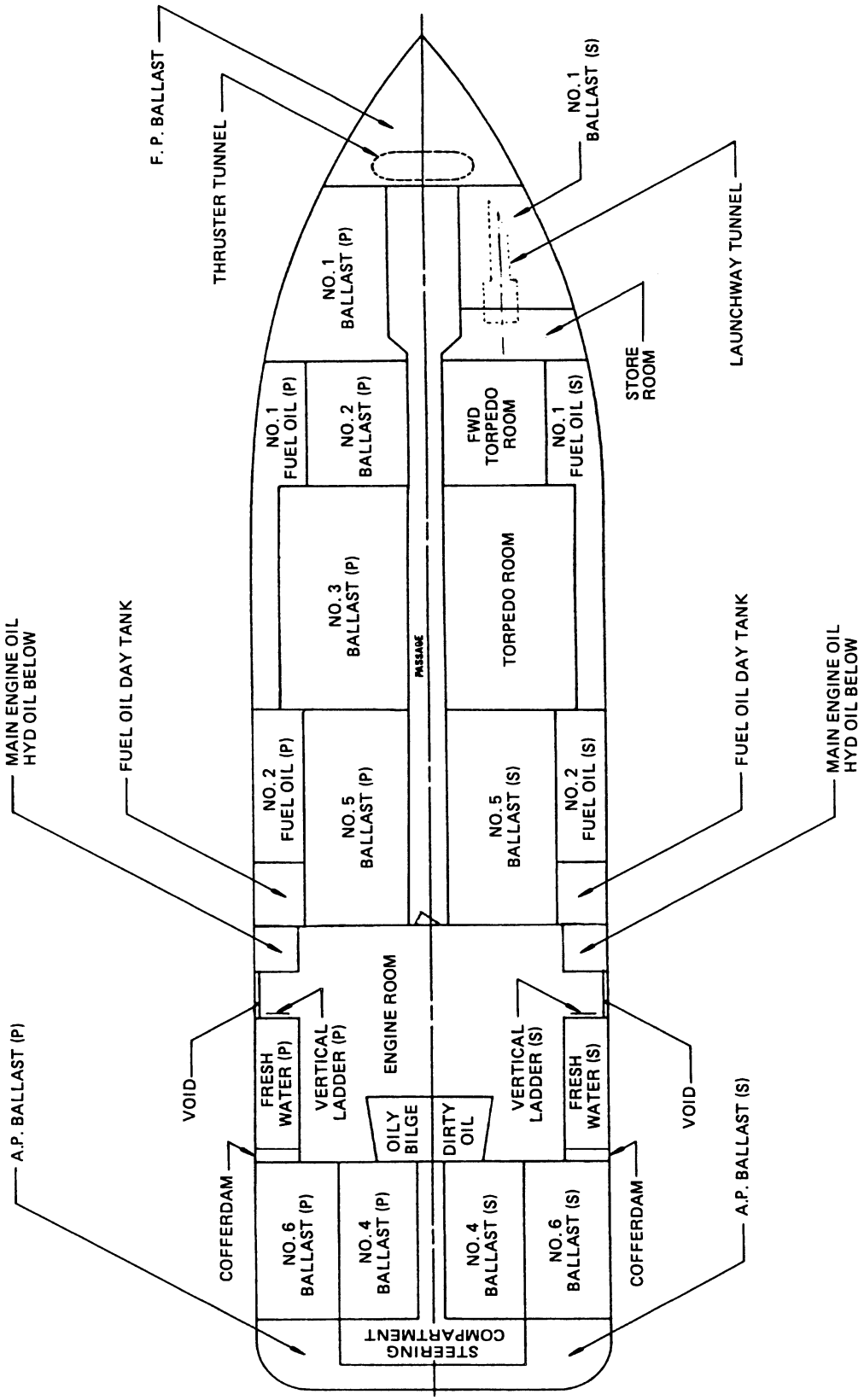
Anemometer: Young 05103
Cellular Telephone: Motorola
EPRIB: ARC/RLB-23
Fathometer: Autohelm ST50
GM Pinger Transducer with STEP Electronics
GPS: Magnavox MX-200 (Differential ready)
Gyrocompass: Sperry Mk-27 Mod 1
LORAN C: Raytheon Raynav 780
Loudhailer: Raytheon 420
MARS/NAS
Radar: Raytheon R82X with ARPA option and Raytheon R73, both with NSK option
Radar Transponder: AN/DPN-78
Radios: Stephens SEA 222 HF/SSB, AN/ARC-159 UHF, ICOM VHF (2)
SATCOM: INMARSAT M, Scientific Atlanta Terminal (For use on RANGER or ROVER, both vessels wired for SATCOM)
Telephone FAX: Panasonic PX-360 (use with Cell phone or SATCOM)
Underwater Telephone: Ametek ATM-504A
UQN Transducer Wells (5 each)
Weather FAX: Alden FAX TR-IV
XBT: Sippican Mk-9 with PC



RANGER Outboard Profile (Frame spacing = 24 inches)



RANGER Main Deck Arrangement



RANGER Hold Arrangement

THIS PAGE INTENTIONALLY LEFT BLANK.

RANGE ROVER 180-Foot Ship

HULL NAME PLATE DATA

Navy Hull Registry No. 180NS9202
ABS I.D. 8207707
Official No. 651195
Hull No. 148 (formerly LOUISE PELHAM)
Constructed 1982 at McDermott Shipyard
Morgan City, LA
Assigned AUTEC 1989

TYPE OF SUPPORT

- Backhaul support
- Surface target
- SATS/MAXI-SATS test support
- Sound source
- OTH test support
- Station keeping
- Quiet ship capability
- Telescopic Target Launcher capability for Mk-30 and Mk-40 targets
- Ramp Recovery System for torpedo and target recovery

PERTINENT DATA

Tonnage	300 gross tons
Length	180 ft
Beam	40 ft
Draft at 1300 tons (FLD)	15 ft 2 in (See Note 1)
Cargo capacity	625 tons
Cargo deck length	110 ft
Cargo deck width	30 ft
Displacement (light load)	675 tons
Mast height	60 ft
Speed (maximum)	10.5 knots
Range	5,800 nmi
Accommodations (overnight)	14
Fresh water capacity	41,272 gal
Fuel capacity	64,288 gal

Note 1: Draft includes 3-ft deep fiberglass dome.

Note 2: Cargo loads must be submitted for trim and stability analysis. Cargo loads are reduced by fuel and water requirements and by operating conditions.

SYSTEM CHARACTERISTICS

Engines

Two Caterpillar D-399TAC diesels developing 1,125 hp each at 1225 rpm.

Fuel consumption	110 gal/hr*
Reduction ratio	4.5:1

Engines channel cooled.

Propellers

Two 4-bladed stainless steel propellers, 80-inch diameter X 72-inch pitch.

Shafts:
- 7-3/8-inch diameter
- 25 foot 11 inch length
- Stainless steel-cladded ABS Grade 2 steel
- Three journals 7-3/4-inch O.D.

Electric Power

Three Caterpillar 3306 diesel generators with paralleling capability producing 135 kW, 480/240 V, 60 Hz, 3 ph each.

Transformers:
- 480/208/120 Vac, 60 Hz, 3 ph, 112.5 KVA
- 480/208/120 Vac, 60 Hz, 3 ph, 45 KVA

*Maximum fuel consumption: Two main engines operating at 1225 rpm and one generator at 1800 rpm.

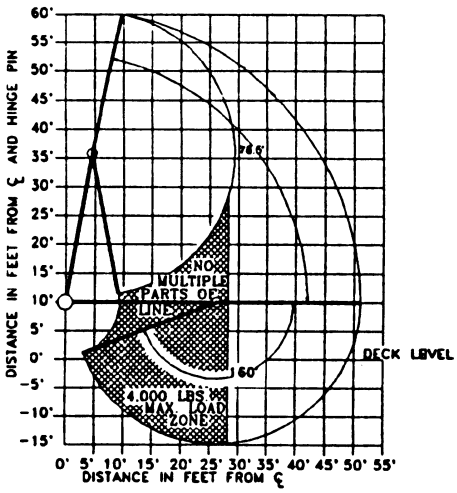
SYSTEM CHARACTERISTICS (Cont)

Customer Deck Power:
- 480 Vac, 200 AMP, 3 ph (1 each)
- 480 Vac, 100 AMP, 3 ph (2 each)
- 480 Vac, 60 AMP, 3 ph (5 each)
- 208/120 Vac, 60 AMP, 3 ph (5 each)
- 120 Vac, 20 AMP, 3 ph (2 each)

EQUIPMENT

U-Frame: 10,000 lb. luffing, 20,000 lb. static, 23-ft from deck to center pad-eye, 12'-6" reach over stern, 10-ft clear width
Bow Thruster: 325 hp, 44-inch Tunnel Thruster
Deck capstans (2)
SMATCO Winch*
10,000-lb. cap. electric winch
Omni-directional thruster, retractable, Type 350 Holland Roer propeller
Robertson Marine dynamic positioning/autotrack system
EMATT
Coastal Crane (refer to chart)

RATED LOAD IN LBS.		
		DYNAMIC
REACH (FEET)	BOOM ANGLE	
10	78.5	18,000
15	73	12,000
20	66	9,000
25	60	7,200
30	53	6,000
35	46	5,100
40	37	4,500
45	26	4,000
52	0	3,400



REEVING CHART FOR 5/8" 19 X 7 STAINLESS WIRE ROPE BREAKING STRENGTH=31,500 LBS. SAFETY FACTOR OF 5		
PARTS OF LINE		
ONE	TWO	THREE
6,300 LBS.	12,600 LBS.	18,900 LBS.

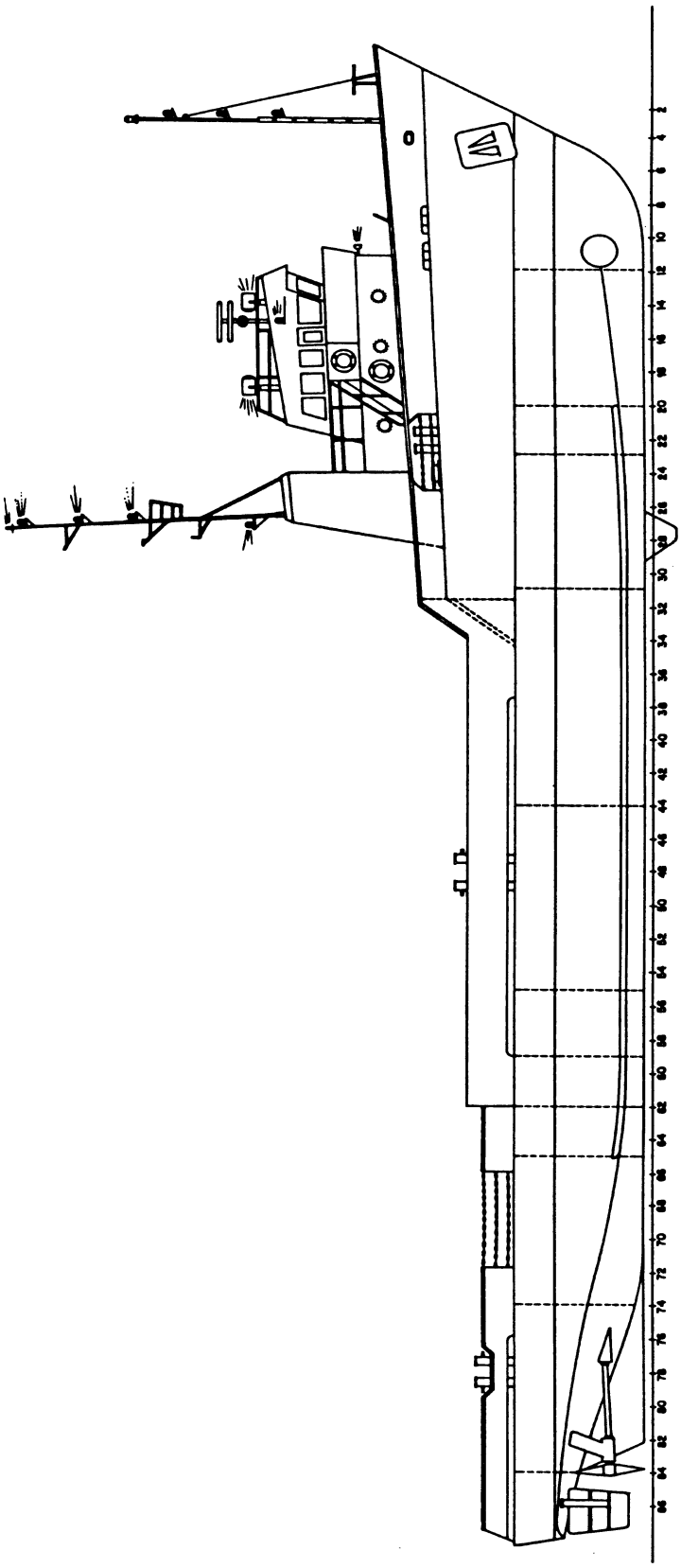
WINCH CAPACITY:
12,000 LBS. (1ST LAYER)

NOTE: ABOVE CHART DOES NOT INCLUDE WEIGHTS OF HOOK BLOCK, WEDGE SOCKET AND CRADLE. TO OBTAIN SWL, THESE WEIGHTS HAVE TO BE DEDUCTED FROM ABOVE VALUES.

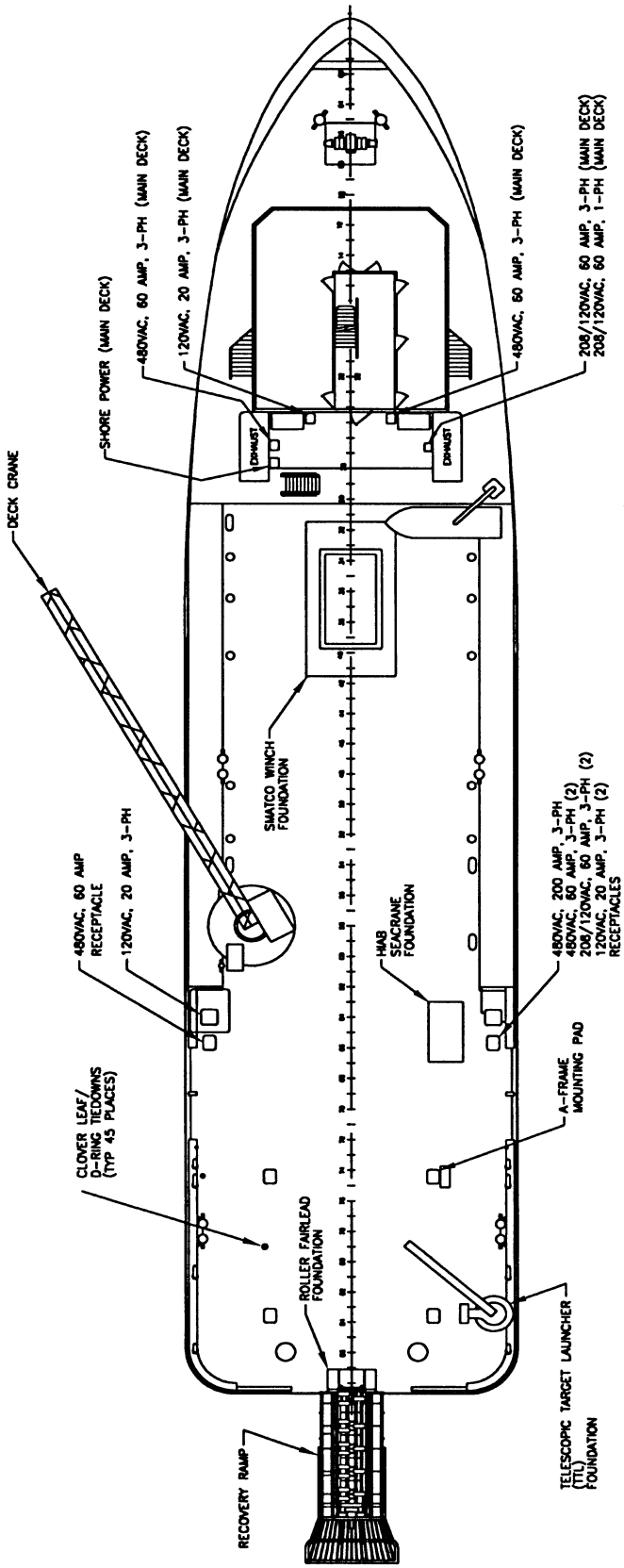
*Refer to Section 10

MARINE ELECTRONICS

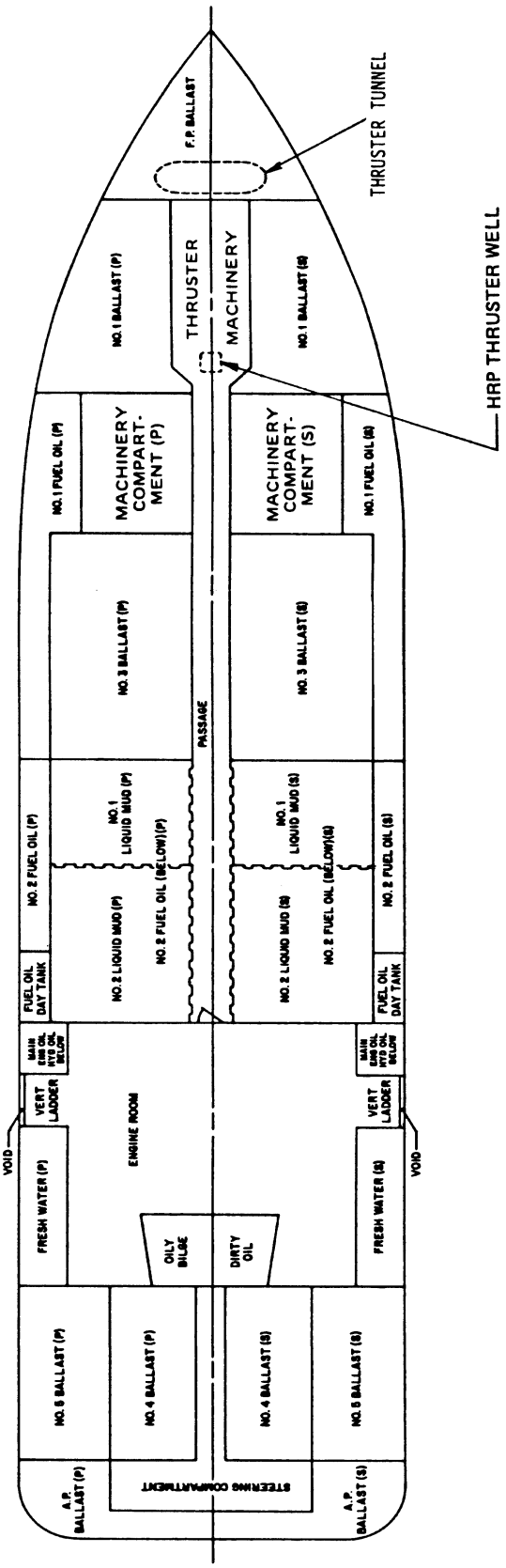
Anemometer: Young 05103
Cellular Telephone: Motorola
EPRIB: ARC/RLB-23
Fathometer: Datamarine 2650
Fluxgate Compass
GM Pinger Transducer with STEP Electronics
GPS: Magnavox MX-200 (Differential ready)
Gyrocompass: Sperry Mk-37 Mod 0
LORAN C: Raytheon Raynav 780
Loudhailer: Raytheon 350
MARS/NAS (space available not installed)
Radar: Raytheon R82X with ARPA option and Raytheon R73, both with NSK option
Radar Transponder: AN/DPN-78
Radios: Stephens SEA 222 HF/SSB, AN/ARC-159 UHF, ICOM VHF (2)
Robertson Marine dynamic positioning/autotrack system
SATCOM: INMARSAT M, Scientific Atlanta Terminal (For use on RANGER or ROVER, both vessels wired for SATCOM)
Spare 19-inch, 10-inch, and 8-inch transducer wells
Telephone FAX: Panasonic PX-360 (use with Cell phone or SATCOM when adapter is procured)
Underwater Telephone: Ametek ATM-504A
Weather FAX: Alden FAX TR-IV
XBT: Sippican Mk-9 with PC



RANGE ROVER Outboard Profile (Frame spacing = 24 inches)



RANGE ROVER Main Deck Arrangement



RANGE ROVER Hold Arrangement

THIS PAGE INTENTIONALLY LEFT BLANK.

RANGEMASTER 110-Foot Ship

HULL NAME PLATE DATA

Hull No. 108
Navy Hull Registry No. 110WB8501
Constructed 1981 at Steiner Fabricators, Inc.
Bayou LaBatre, AL
Assigned AUTEC 1981
ABS I.D. No. 8128739
Official No. 639681

TYPE OF SUPPORT

- Launch and retrieve torpedoes/targets (roller stowage for 14 Mk-30 targets)
- Torpedo roller assemblies and torpedo transfer carriages are removable
- Telescopic target launcher capability for Mk-30 targets and Mk-48 weapons
- OTH test support
- Limited test platform capabilities (subject to weather restrictions)
- SATS, MAXI-SATS
- Quiet ship capability

PERTINENT DATA

Tonnage:	
Gross	99 tons
Net	67 tons
Length	110 ft
Beam	26 ft
Draft at 320 tons (FLD)	10 ft 6 in (See Note 2)
Mast height (RE: WL)	53 ft 4 in
Hoisting weight	198 tons
Speed (cruising)	11.5 knots
Range	3,000 nmi
Accommodations (overnight)	18
Fresh water capacity	5,600 gal
Fuel capacity	17,905 gal

Steel hull and superstructure.

Note 1: Cargo loads must be submitted for trim and stability analysis. Cargo loads are reduced by fuel and water requirements and by operating conditions.

Note 2: Draft includes 3-ft fiberglass dome.

SYSTEM CHARACTERISTICS

Engines

Two GM16V-92N diesel engines developing 600 bhp each at 1800 rpm cruising.

Reduction ratio	5:1
Fuel consumption	65 gal/hr*

Engines grid cooled.

Propellers

Two 4-bladed propellers, one right-hand, one left-hand, 62-inch diameter X 55-inch pitch, 4-1/2-inch diameter shafts (Aquamet 17), 21 feet 9 inches long.

Electric Power

Two GM4-71 diesel generators with paralleling capability producing 60 kW, 440 V, 3 ph, 60 Hz each.

Transformer: 440/208/120 Vac, 60 Hz, 3 ph, 75 KVA.

Customer Deck Power:
- 440 Vac, 60 AMP, 3 ph (1 each)
- 120 Vac, 20 AMP, 3 ph (3 each)

*Maximum fuel consumption: Two main engines and one generator operating at 1800 rpm.

EQUIPMENT

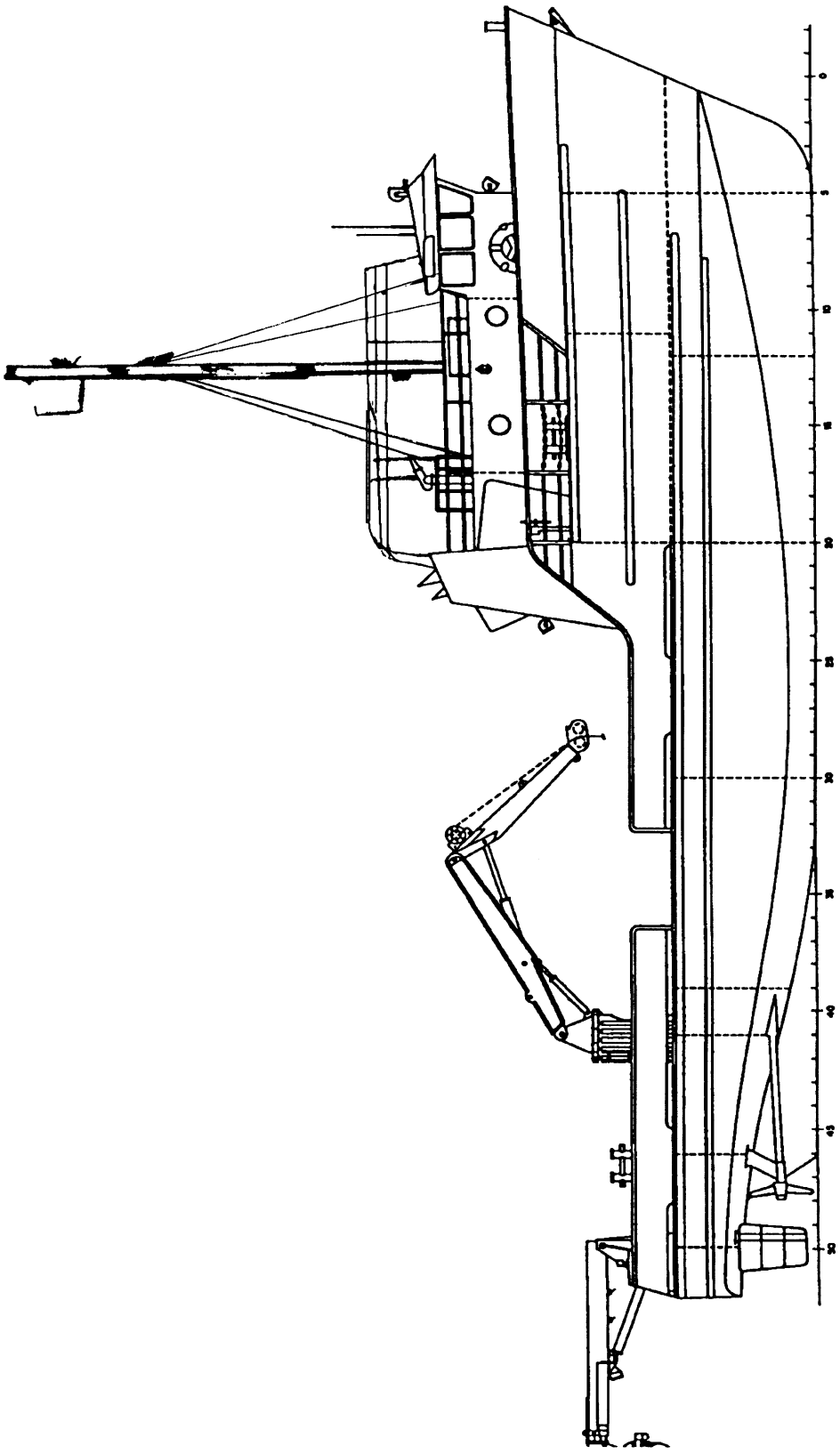
EMATT
Alaska Marine Crane Model MCK-1231:
- 18,000 lb capability at 10-ft radius and 73E boom angle
- 8,500 lb capability at 30-ft radius and 0E boom angle

Telescoping Target Launcher (TTL)

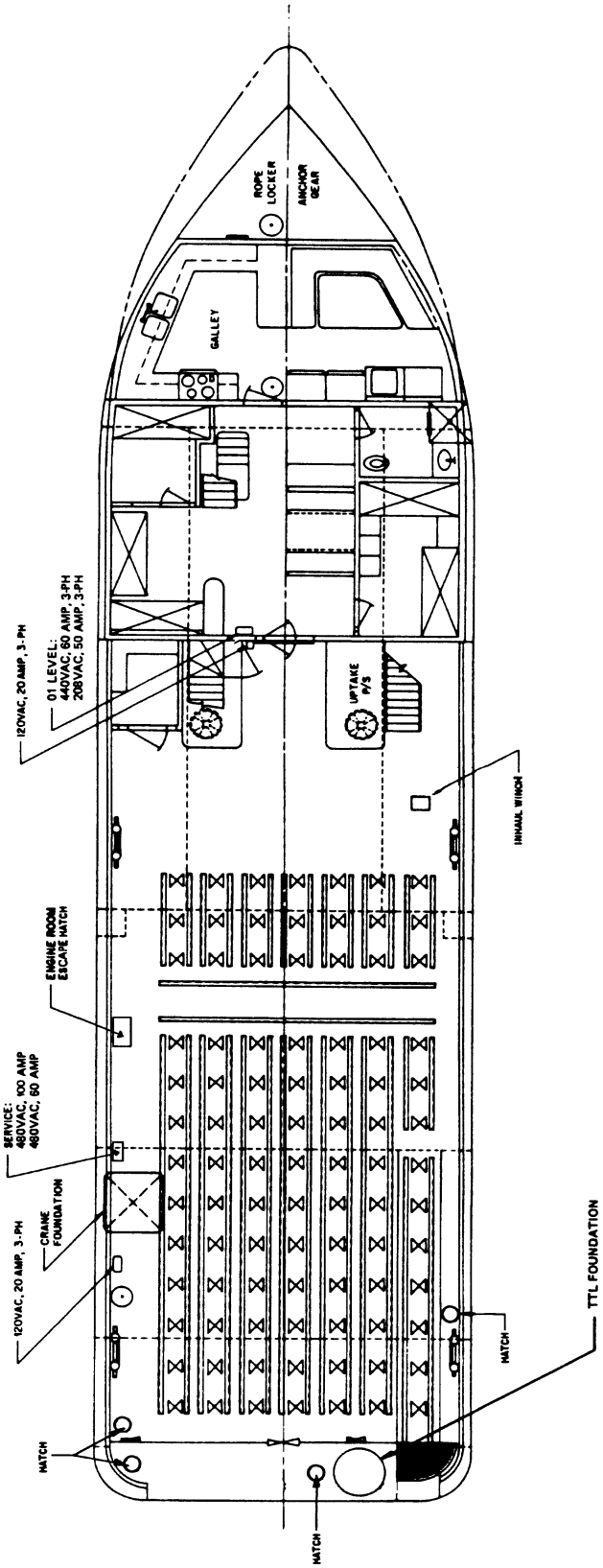
NOTE: All marine crane lift loads must be submitted for trim and stability analysis to develop a lift plan.

MARINE ELECTRONICS

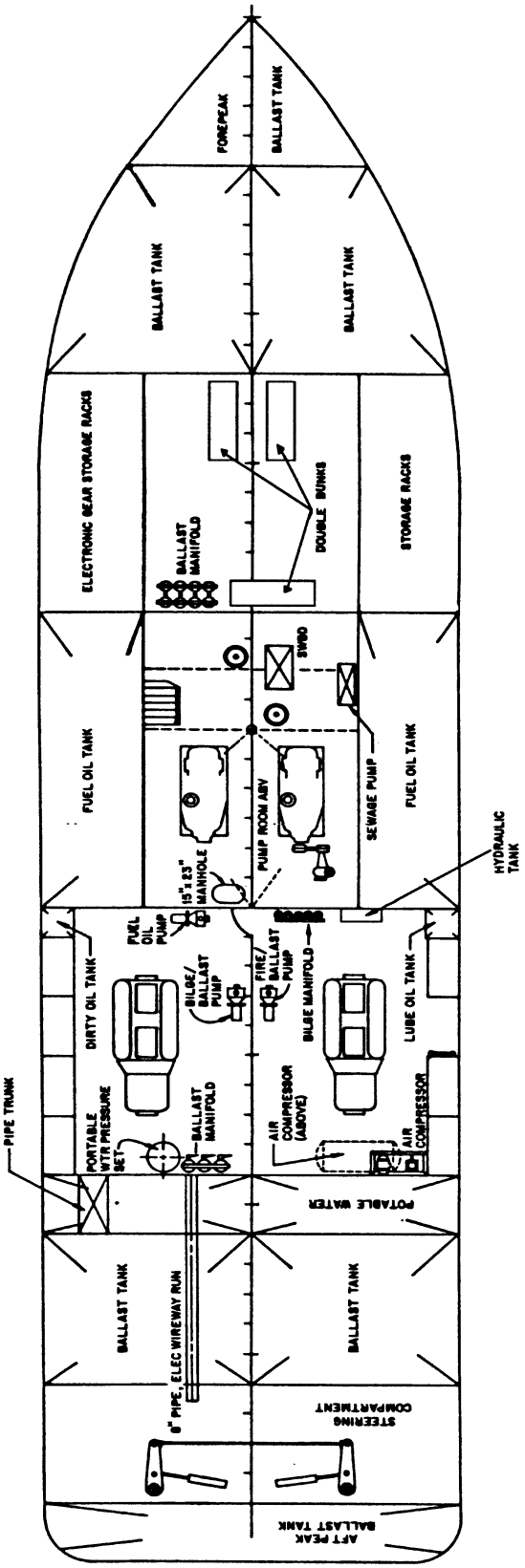
Anemometer: Young 05103
Cellular Telephone: Motorola
EPRIB: ARC/RLB-23
Fathometer: Datamarine LX-300
GM Pinger Transducer with STEP Electronics
GPS: Magnavox MX-200 (Differential ready)
Gyrocompass: Sperry Mk-27 Mod 1
LORAN C: Micrologic 320
Loudhailer: Raytheon 410
MARS/NAS
Radar: Raytheon R41 and Raytheon R41XX with MARPA option, both with NSK option
Radar Transponder: AN/DPN-78
Radios: Stephens SEA 222 HF/SSB, AN/ARC-159 UHF, ICOM M-125 VHF
Underwater Sounder: AN/UQN-1H
Underwater Telephone: AN/UQC-1G
XBT: Sippican Mk-9 with PC



RANGEMASTER Outboard Profile (Frame spacing = 24 inches)



RANGEMASTER Main Deck Arrangement



RANGEMASTER Hold Arrangement

LCM(8)-6775 74-Foot Landing Craft, Mechanized

HULL NAME PLATE DATA

Hull No. 74CM6775
Constructed 1969 at Marinette Marine, Marinette, WI
Assigned AUTEC 1977

TYPE OF SUPPORT

- Transportation of downrange equipment, water, and cargo between sites
- Limited test platform capabilities (subject to daylight and weather restrictions)
- Mechanical off-loading ramp 14-ft 6-in wide
- 500-lb davit

PERTINENT DATA

Net tonnage	46 tons
Length	74 ft 3 in
Beam	21 ft
Draft at 235,000 lbs (FLD)	4 ft 9 in
Hoisting weight	120,000 lbs
Cargo capacity (see Note)	120,000 lbs
Deck cargo capacity w/cargo water	5,000 lbs
Cargo well length	42 ft
Cargo well width	17 ft
Mast height (RE: WL)	29 ft
Speed (maximum)	9.2 knots
Range	200 nmi
Accommodations (overnight)	None
Fresh water capacity	15,000 gal (cargo wt. 125,000 lbs)
Fuel capacity	870 gal

Aluminum hull and superstructure, steel pilothouse.

NOTE: Cargo loads must be submitted for trim and stability analysis. Cargo loads are reduced by fuel and water requirements and by operating conditions.

SYSTEM CHARACTERISTICS

Engines

Two GM8V-71N diesel engines developing 325 hp each at 1800 rpm.

Reduction ratio	2.5:1
Fuel consumption	32 gal/hr*

Engines grid cooled.

Propellers

Two 3-bladed propellers, one right-hand, one left-hand, 34-inch diameter X 26-inch pitch, 2-1/2-inch diameter shafts.

Electric Power

One diesel generator producing 20 kW, 440 Vac, 60Hz, 3 ph at 1800 rpm.

Two LaMarche constavolts 24 Vdc.

24 Vdc to 12 Vdc converter.

Transformer: 208/115 Vac, 30 KVA

*Maximum fuel consumption: Two main engines and one generator operating at full 1800 rpm.

SYSTEM CHARACTERISTICS (Cont)

Customer Deck Power

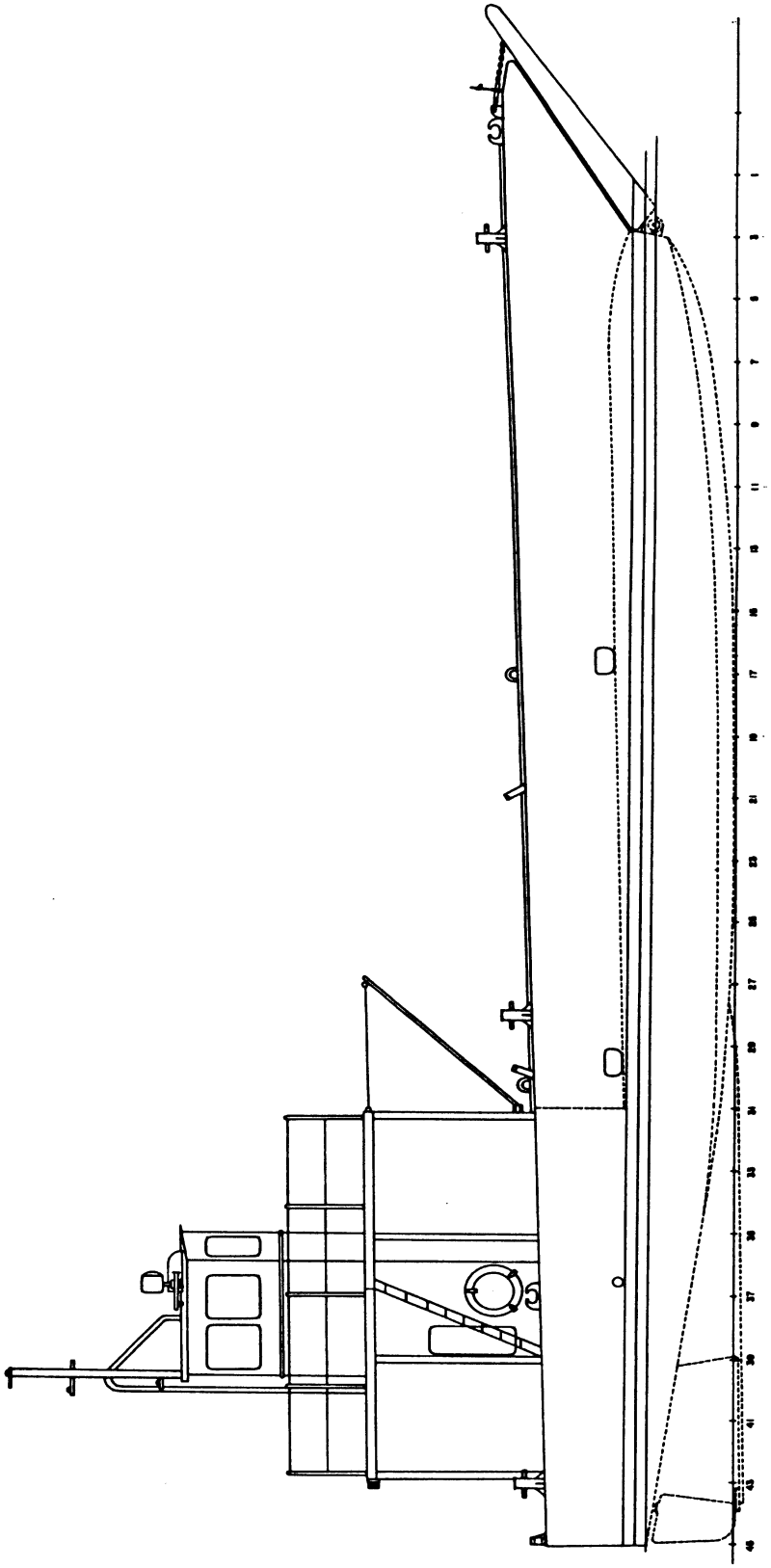
440 Vac, 3 ph 30 amps (1 each)

EQUIPMENT

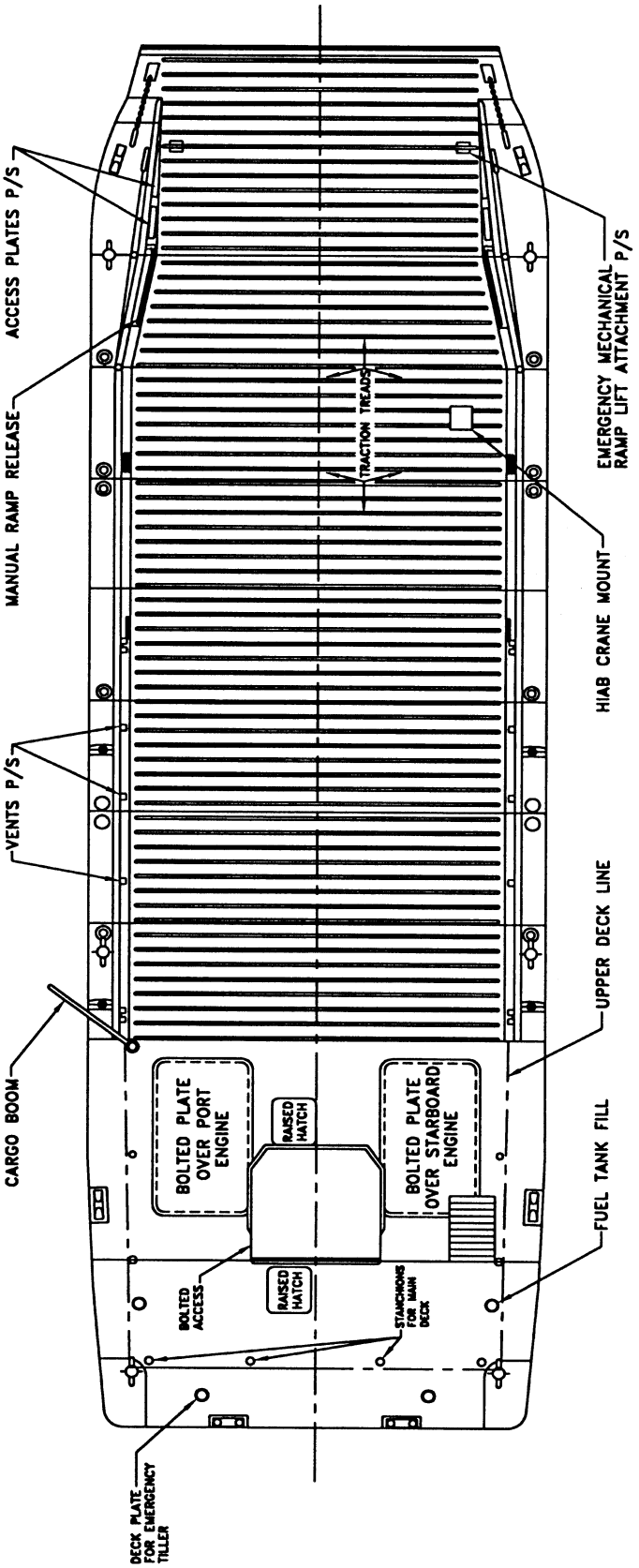
Magnetic compass
500-lb davit

MARINE ELECTRONICS

EPRIB: ARC/RLB-20
Fathometer: Datamarine LX-300
GPS: Magnavox MX-200
Loudhailer: Raytheon 400
Radar: Raytheon R73
Radios: Stephens SEA 222 HF/SSB, ICOM M-80 VHF
Gyrocompass: Sperry Mk-27 Mod 1



LCM(8)-6775 Outboard Profile (Frame spacing = 18 inches)



LCM(8)-6775 Main Deck Arrangement

THIS PAGE INTENTIONALLY LEFT BLANK.

HAMMERHEAD I & II Personnel Boats

HULL NAME PLATE DATA

HAMMERHEAD I
Hull No. SAMA 1047F999
HAMMERHEAD II
Hull No. SAMA 1048F999
Constructed 1999 at SeaArk, Arkansas
Assigned AUTEC 1999/2000

TYPE OF SUPPORT

- Personnel transportation and rendezvous
- Site 1 area XBT support

PERTINENT DATA

Tonnage:	
Gross	24 tons
Length	48 ft
Beam	16 ft
Draft	4 ft 6 in
Hoisting weight	39,000 lbs
Mast height (RE: WL)	18 ft
Accommodations (overnight)	None
Passengers accommodated:	
Fair weather	25
Rough weather	15
Speed (maximum)	30 knots
Speed (cruise)	21 knots
Range	300 nmi
Fuel capacity	600 gal
Cargo deck capacity	1,500 lbs
Potable water capacity	200 gal

Aluminum hull and superstructure.

SYSTEM CHARACTERISTICS

Engines

Two Caterpillar 3196 DITA diesel developing 660 hp at 2,300 rpm.

Reduction ratio	1.92:1
Fuel consumption (max)	66 gal/hr*
Fuel consumption (cruise)	43 gal/hr*

Propellers

Two 5-bladed propeller, 30-inch diameter X 32.5-inch pitch, 2.5-inch diameter shaft (Aquamet 17).

Electric Power

One Northern Lights diesel generator producing 16 kW, 240/120 Vac, 60 Hz single phase.
24 Vdc battery charger.
12 Vdc battery charger.

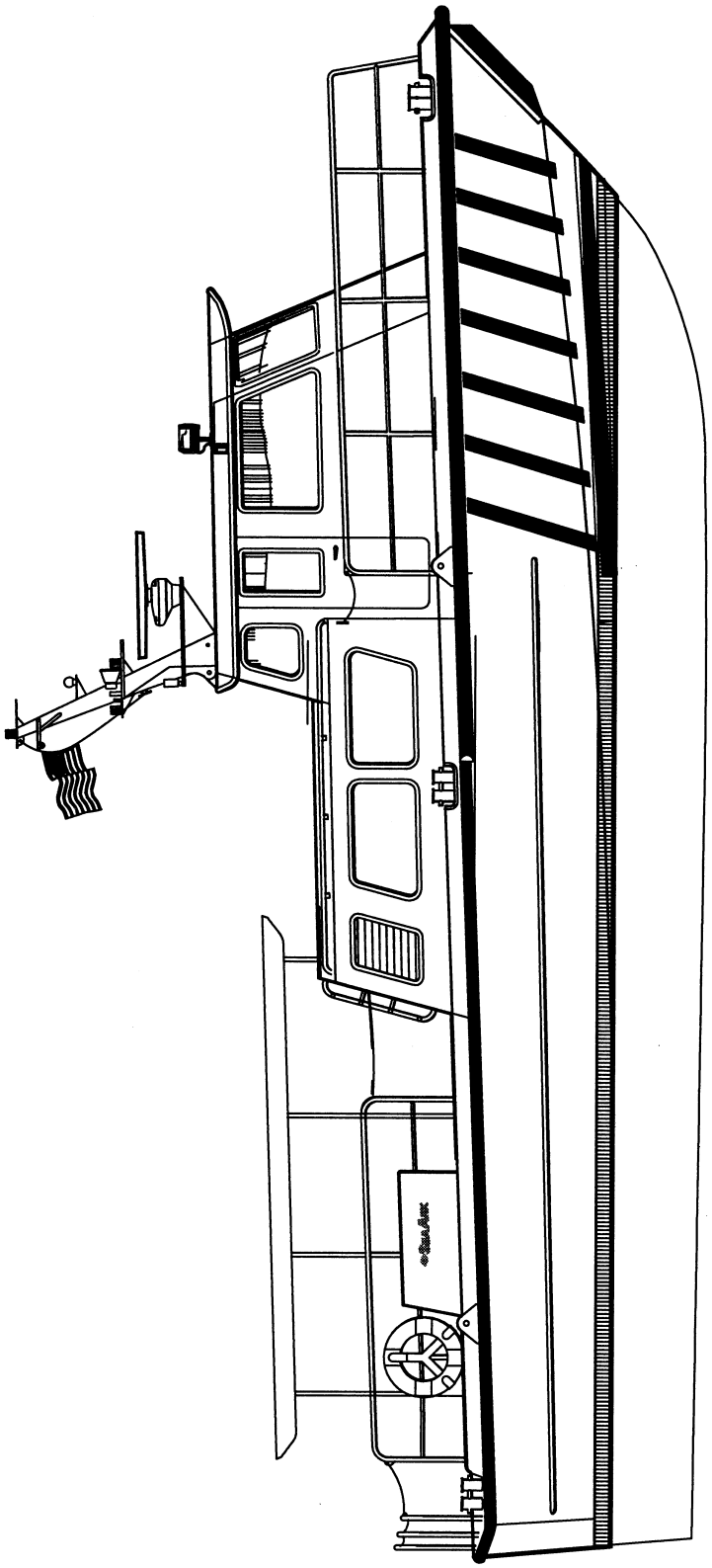
EQUIPMENT

Personnel transfer port and starboard
Lab 12 Vdc and 24 Vdc bakns

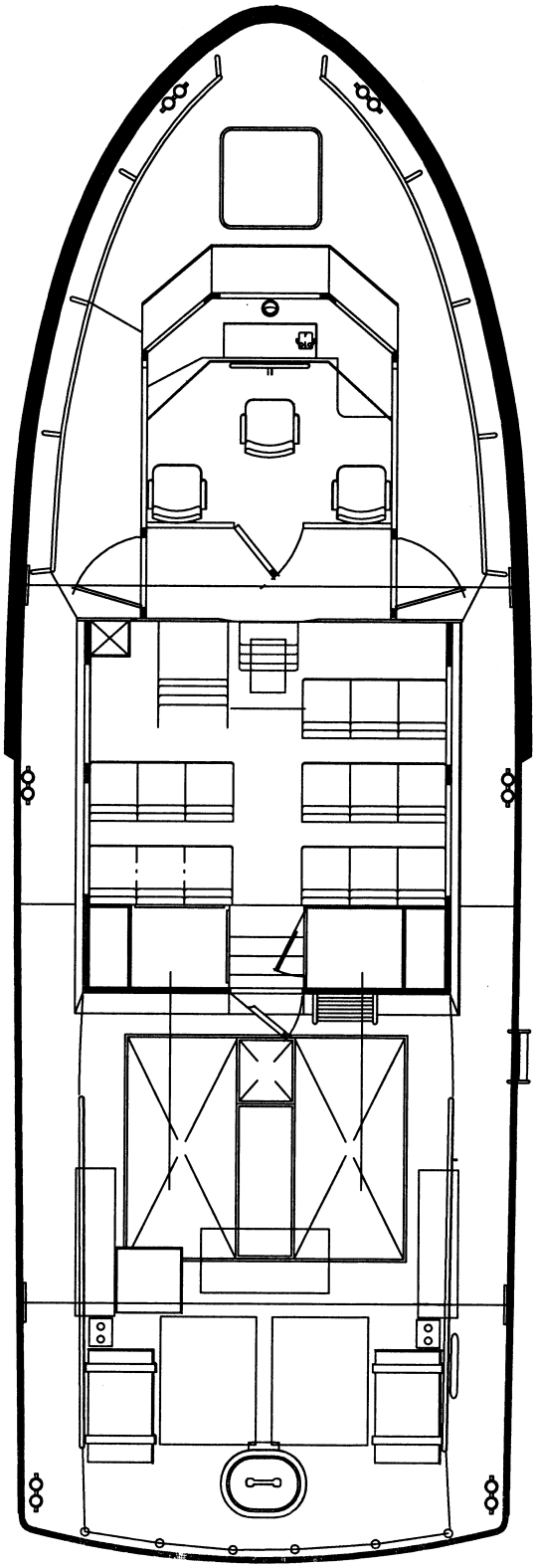
* (Main engine and generator)

MARINE ELECTRONICS

Fathometer: Datamarine NLA DCD 400
GPS: Leica MX-412
Fluxgate compass: Autohelm
Loudhailer: Standard NLA - LHS
Radar: Raytheon R41XX
Radios: HF radio - Sea NLASEA 235; VHF radio - ICOM M-127



HAMMERHEAD Outboard Profile (Frame spacing = 30 inches)



HAMMERHEAD Main Deck Arrangement

THIS PAGE INTENTIONALLY LEFT BLANK.

ALMAR ONE/ALMAR TWO/ALMAR THREE 18-Foot Rigid Inflatable Boat

HULL NAME PLATE DATA

Hull No. AUC2535AG293/AUC2606AC595/AUC2714R1798
Fabricated 1993, 1995, and 1997 by ALMAR, Tacoma, WA
ALMAR RAIV
Assigned AUTEC 1993, 1995, and 1997

TYPE OF SUPPORT

Support of torpedo recovery with RANGER and RANGE ROVER Ramp Recovery System (RRS)

PERTINENT DATA

Length	18 ft
Beam	7 ft
Draft	1 ft
Hoisting weight (boat with motor)	1,675 lbs
Passenger capacity	2
Gross weight (with fuel, crew, and equipment)	2,225 lbs
Speed (maximum)	30 knots
Range	100 nmi

Hull: Aluminum rigid hull with 20 inch diameter polyurethane inflatable collar. Center console.

SYSTEM CHARACTERISTICS

Engines

One Mercury 115 hp gasoline outboard engine developing an effective 75 hp at 5500 rpm.
Engine S/N 0D261380 and 0G256753.
39-gallon fuel capacity.
Electric start.
Raw water cooled.

Propellers

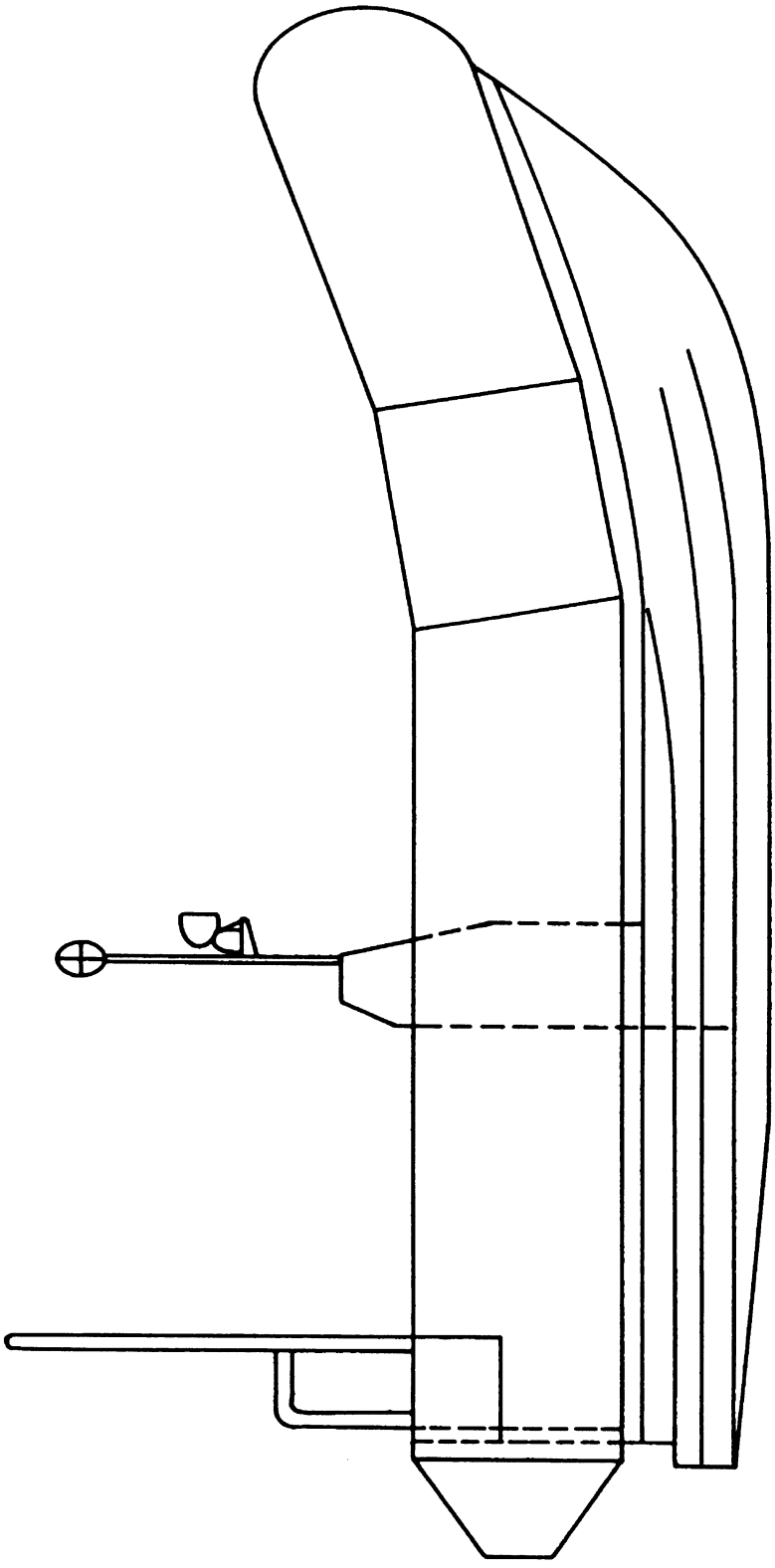
N/A. Engine lower unit fitted with Outboard Jet-Drive, San Leandro, CA.

Electric Power

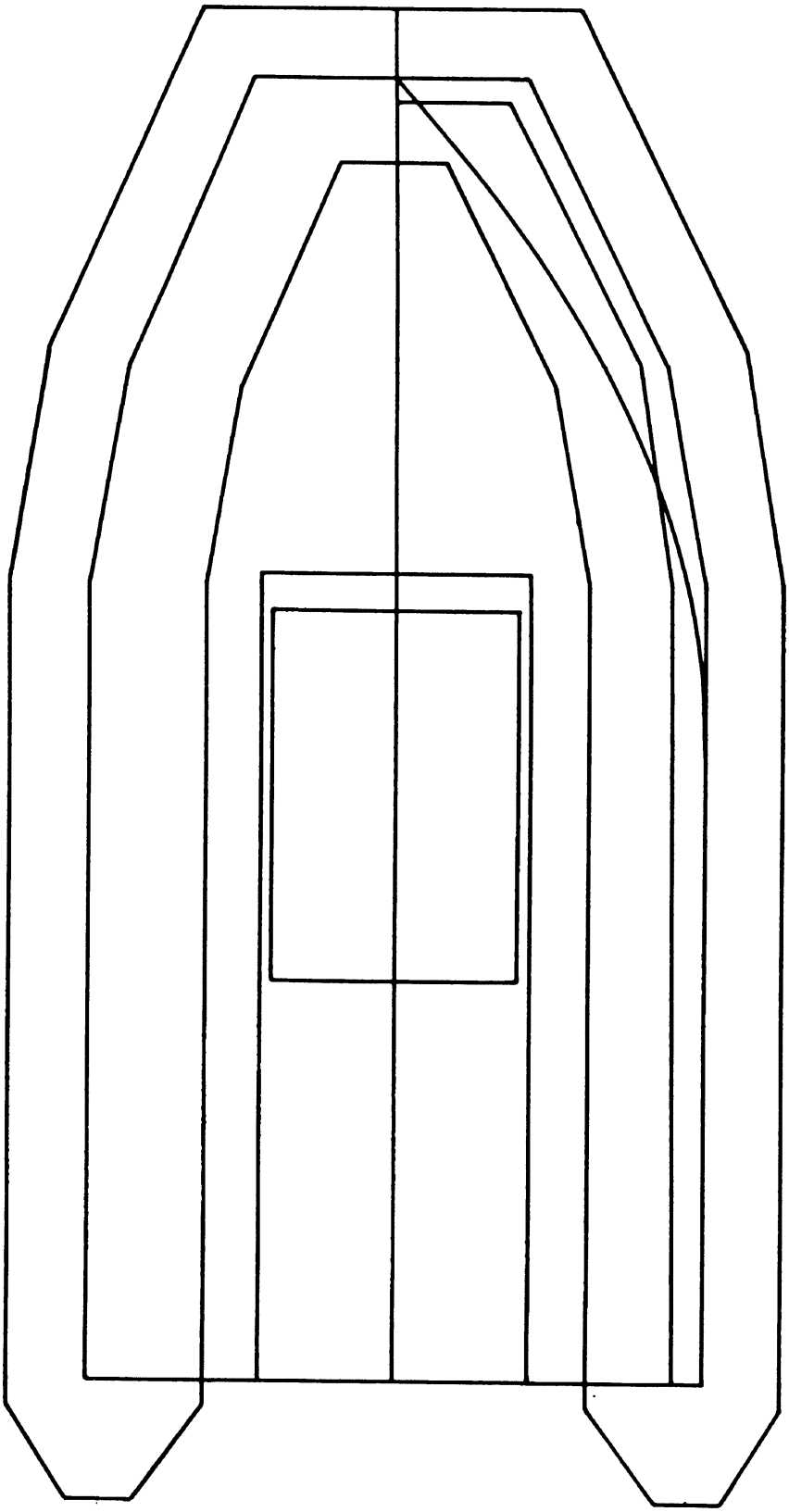
Engine-mounted alternator producing 12 Vdc.

EQUIPMENT

Towing frame
Radar beacon
Compass
Handheld VHF radio
Oars



ALMAR ONE/ALMAR TWO/ALMAR THREE Outboard Profile



ALMAR ONE/ALMAR TWO/ALMAR THREE Main Deck Arrangement

GREY SNAPPER 1/2/3/4 UTILITY BOAT 19-Foot (four total)

-

PERTINENT DATA

Length	19 ft
Beam	7 ft
Draft	2 ft
Hoisting weight	1,100 lbs
Passenger capacity	7
Passenger weight capacity	1,155 lbs
Total weight capacity	1,925 lbs
Speed (maximum)	30 knots
Range	30 nmi

Fiberglass hull.
Center console.

SYSTEM CHARACTERISTICS

Engines

One Evinrude gasoline outboard V-4 motor developing 100 hp at 5500 rpm.
12-gallon fuel capacity.
Electric start.
Raw water cooled.

Propellers

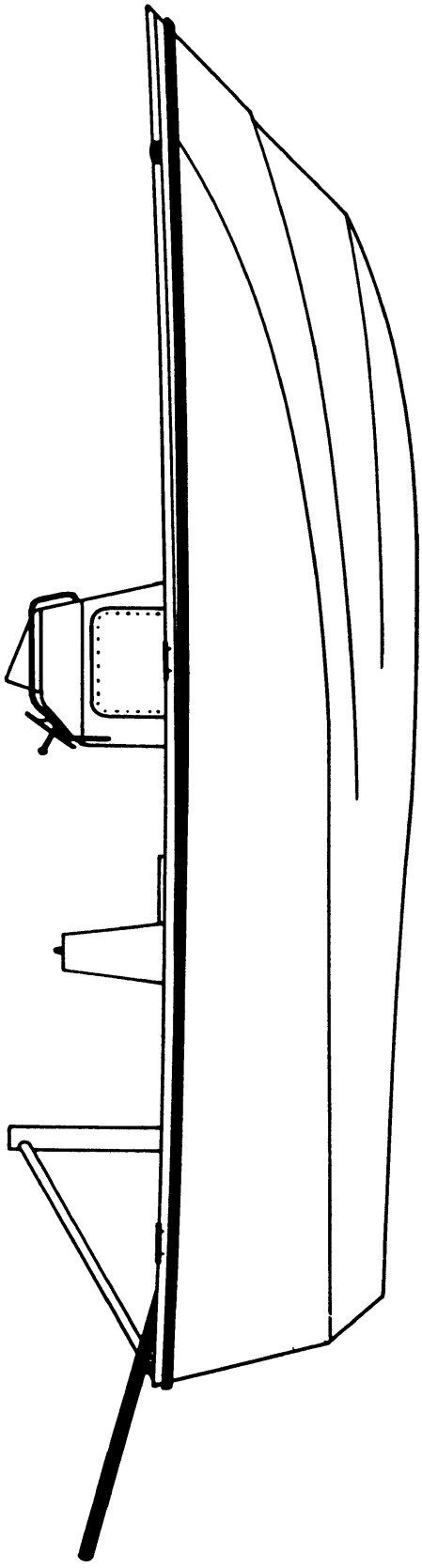
One 3-bladed stainless steel propeller, right-hand rotation, 13-1/4-inch diameter X 17-inch pitch.

Electric Power

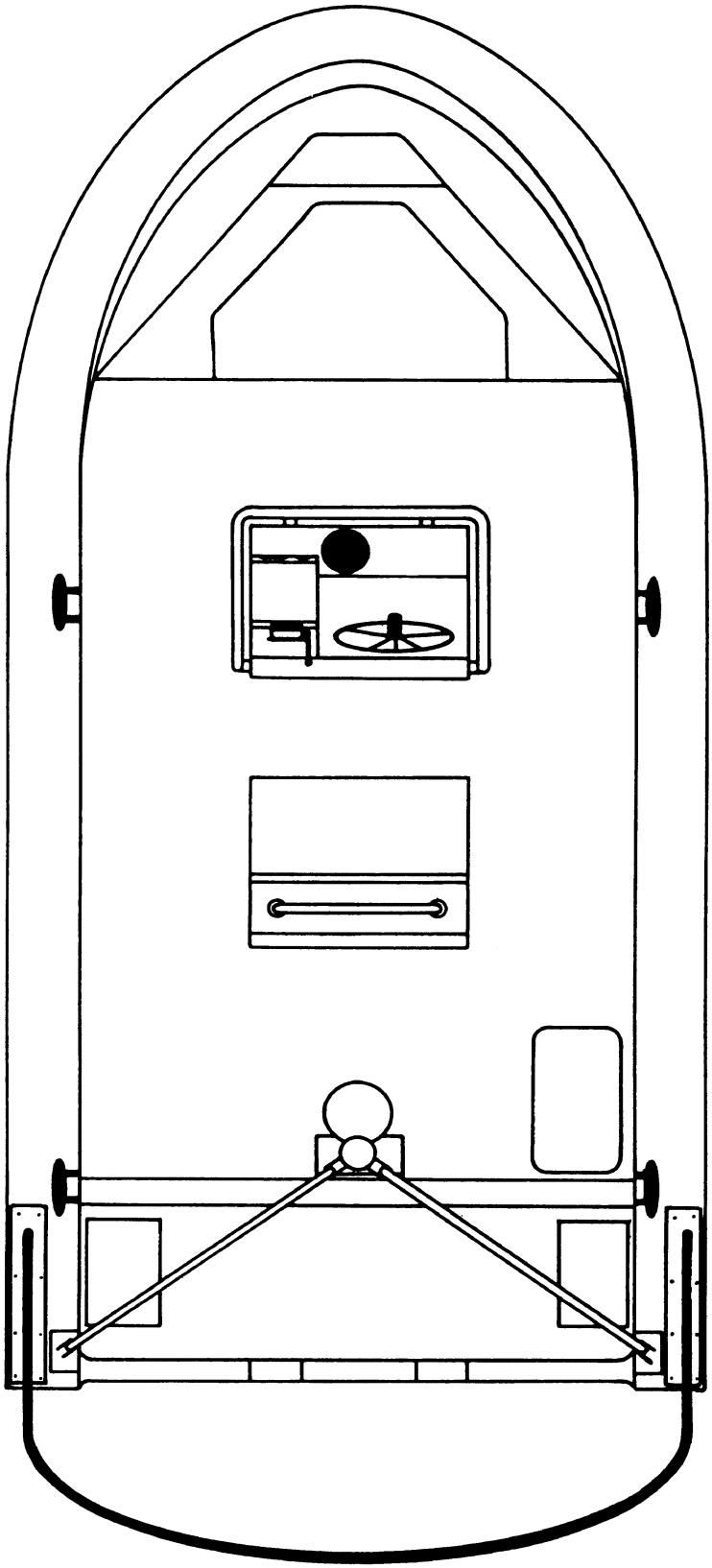
Engine-mounted alternator producing 12 Vdc.

EQUIPMENT

ICOM M25D VHF
Radar reflector
Oil boom towing bar
Magnetic compass



GREY SNAPPER 1/2/3/4 UTILITY BOAT (19-Foot) Outboard Profile



GREY SNAPPER 1/2/3/4 UTILITY BOAT (19-Foot) Main Deck Arrangement

GREY SNAPPER 5 UTILITY BOAT 22-Foot (one boat)

HULL NAME PLATE DATA

Hull constructed to NAVSEA DWG No. 5105263

TYPE OF SUPPORT

- Offshore tower maintenance
- General duty

PERTINENT DATA

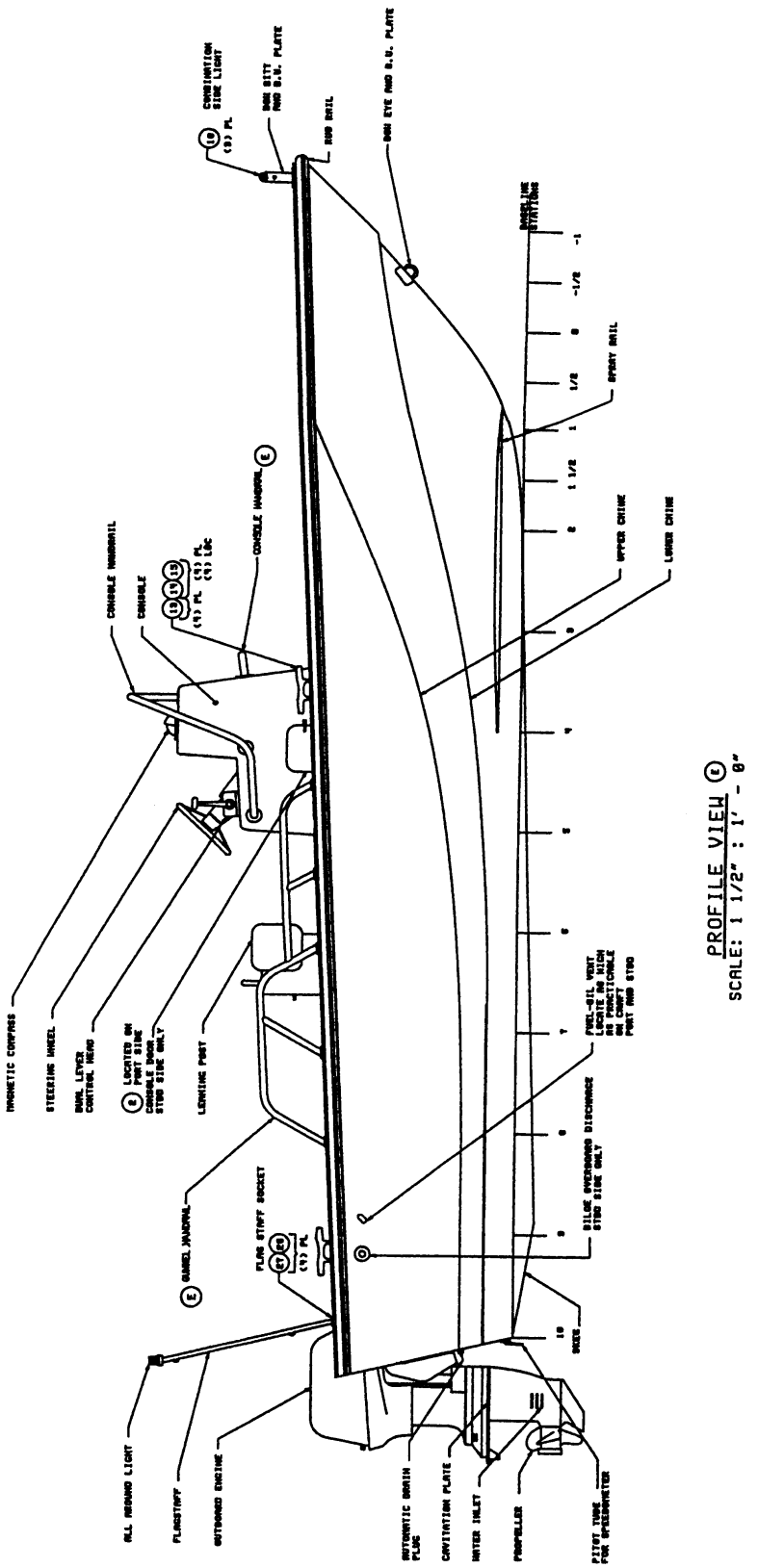
Length	21 ft 8 in
Beam	8 ft 6 in
Displacement (light condition)	3,880 lbs

PROPULSION

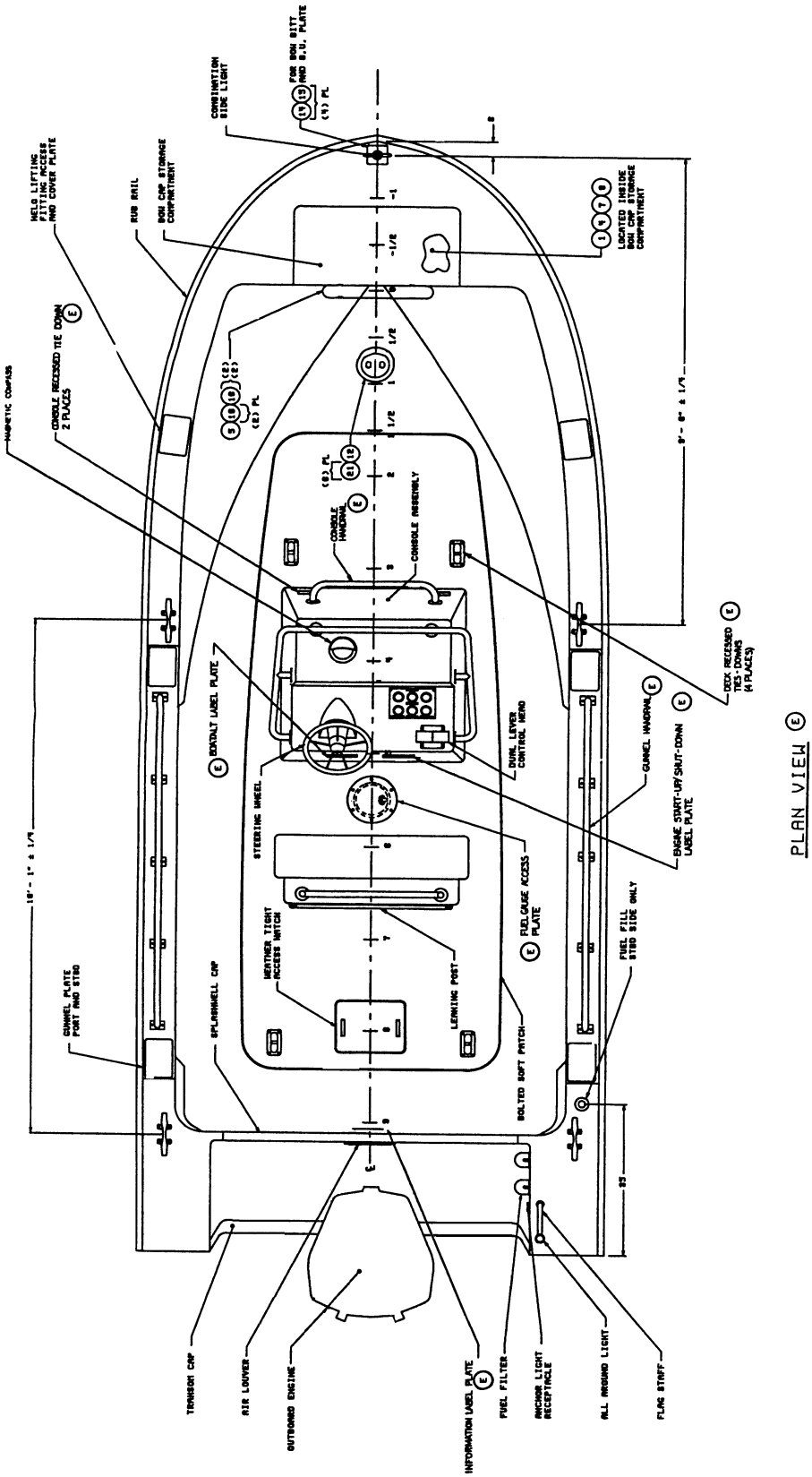
Single Johnson outboard motor	
Rating	225 hp at 5500 rpm
Engine Cooling	Raw water-cooled
Fuel Capacity	100 U.S. gal
Electrical System	12 Vdc
Crew	2 persons

CONSTRUCTION

Hull and Deck	Fiberglass reinforced plastic (foam filled)



GREY SNAPPER 5 UTILITY BOAT (22-foot) Outboard Profile


COMBINATION SIDE LIGHT
FOR BOW SHIP AND S.U. PLATE
WELD LIFTING FITTING ACCESS AND COVER PLATE
RUB RAIL
BOW CMP STORAGE COMPARTMENT
LOCATED INSIDE BOW CMP STORAGE COMPARTMENT
CONSOLE RECESSED TIE DOWN 2 PLACES
MAGNETIC COMPASS
CONSOLE HANDRAIL
CONSOLE ASSEMBLY
DECK RECESSED TIES - DOWNS (4 PLACES)
BOATALT LABEL PLATE
STEERING WHEEL
DUAL LEVER CONTROL HEAD
GUNNEL HANDRAIL
ENGINE START-UP/SHUT-DOWN LABEL PLATE
FUEL GAUGE ACCESS PLATE
WEATHER TIGHT ACCESS HATCH
LEANING POST
BOLTED SOFT PATCH
FUEL FILL STBD SIDE ONLY
GUNNEL PLATE PORT AND STBD
SPLASHWELL CMP
TRANSOM CMP
AIR LOUVER
OUTBOARD ENGINE
INFORMATION LABEL PLATE
FUEL FILTER
ANCHOR LIGHT RECEPTACLE
ALL AROUND LIGHT
FLAG STAFF

PLAN VIEW (E)

GREY SNAPPER 6 UTILITY BOAT 17-Foot (one boat)

HULL NAME PLATE DATA

Model: EW-1999-170JC-118 17 foot JUSTICE
Hull constructed to USN AUTEC 05/03/1999
Hull NO. BWCXB433E999

TYPE OF SUPPORT

- Environmental cleanup and downrange site boat
- General duty

PERTINENT DATA

Length	17 ft 6 in
Beam	7 ft
Displacement (light condition)	1,825 lbs
Fuel Capacity	54 U.S. gal
Electrical System	12 Vdc
Crew	7 persons
Draft	2 ft
Hoisting weight with engine	2,161 lbs
Max. Load Cap	1,820 lbs

CONSTRUCTION

Hull and Deck	Fiberglass reinforced plastic (foam filled)

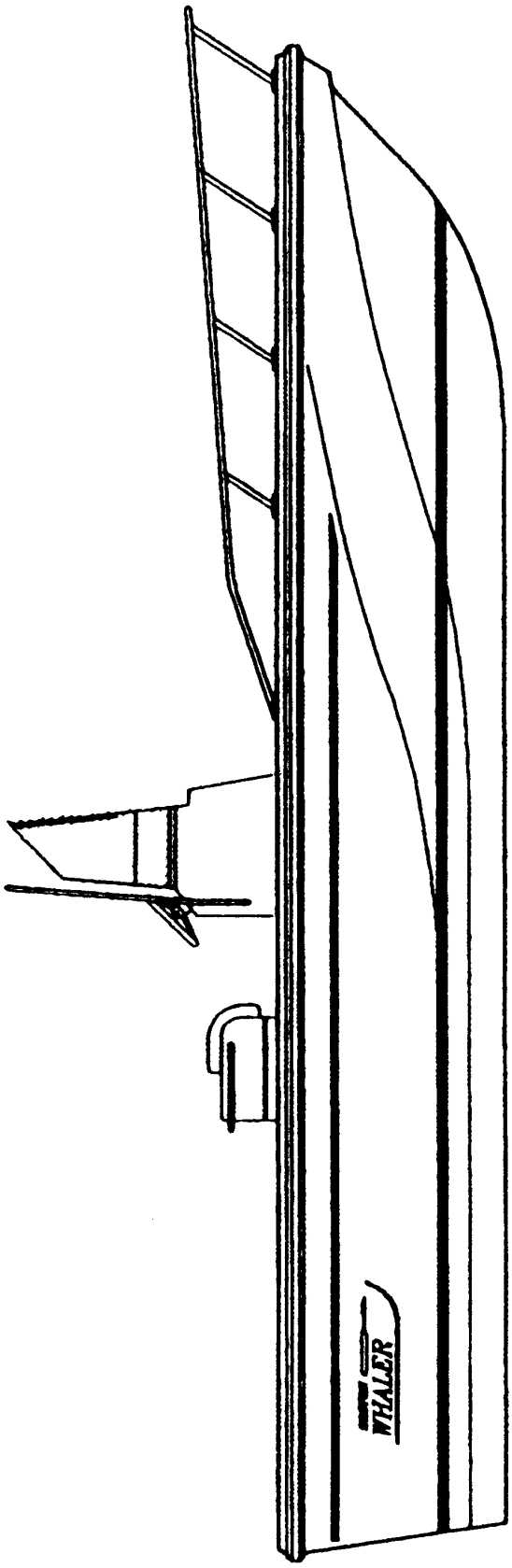
SYSTEM CHARACTERISTICS

Engines

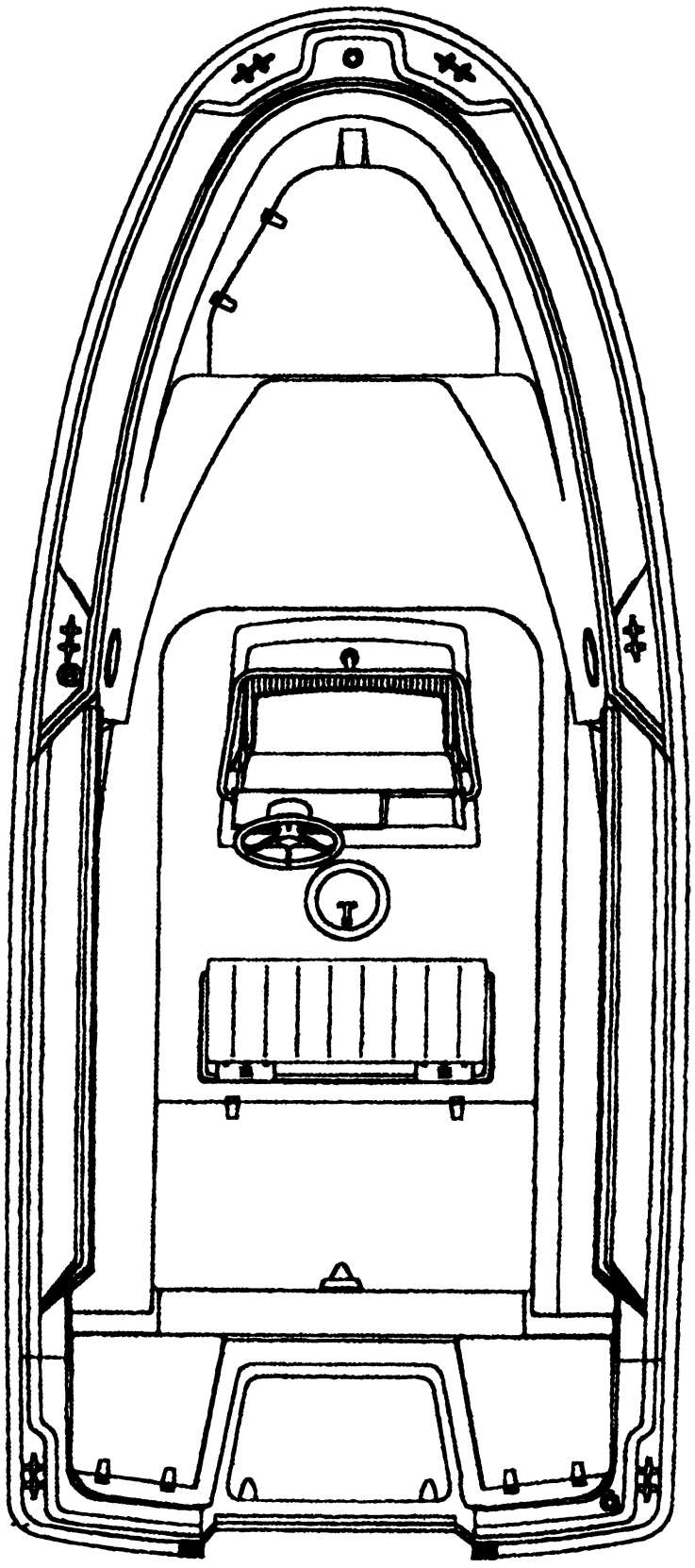
One Evinrude gasoline outboard V-4 motor developing 115 hp at 5500 rpm
Weight of engine is 336lbs.
Raw water cool.
Electric start.

Propeller

One 3-bladed aluminum propeller, right hand rotation, 14-in. diameter x 13-in. pitch.



GREY SNAPPER 6 UTILITY BOAT (17-foot) Outboard Profile



GREY SNAPPER 6 UTILITY BOAT (17-foot) Main Deck Arrangement

GREY SNAPPER 7 UTILITY BARGE 32-Foot

HULL NAME PLATE DATA

Hull constructed by SeaArk 6/11/99
Hull No. SAMA 1030D999

TYPE OF SUPPORT

- Environmental cleanup

PERTINENT DATA

Length	32 ft
Beam	12 ft 8 in
Draft	28 in
Hoisting weight (dry)	4,920 lbs
Speed	32 knots

SYSTEM CHARACTERISTICS

Engines

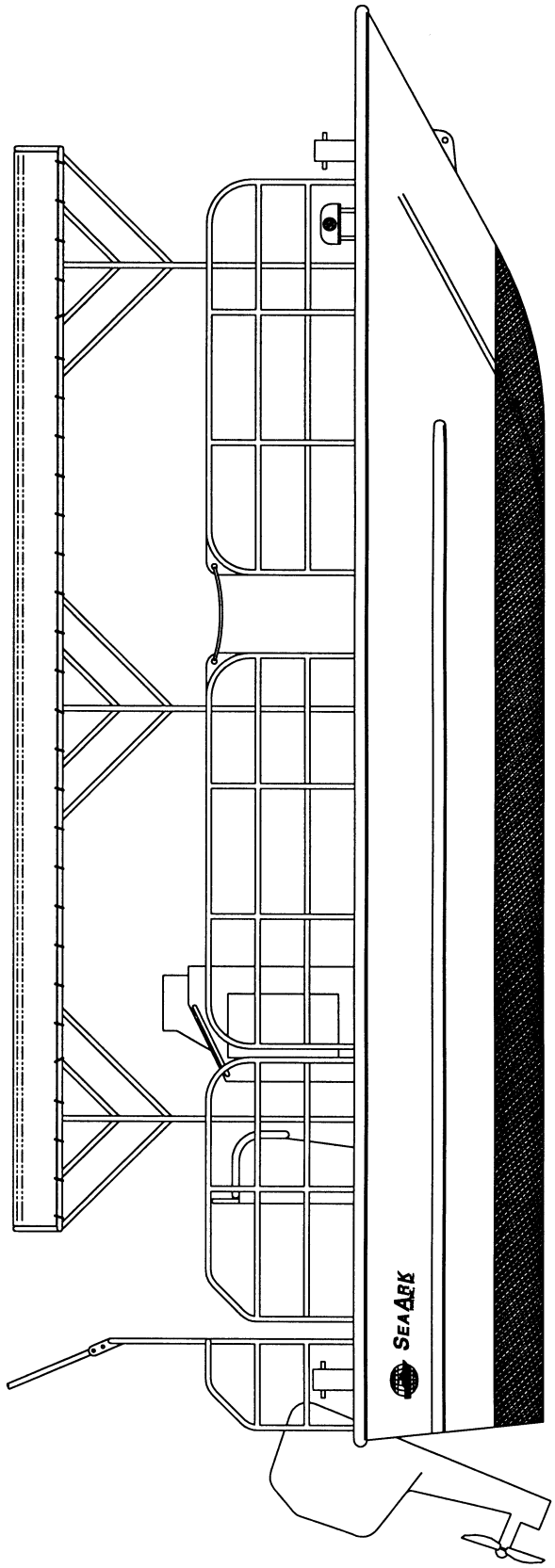
Two Johnson gasoline V-4 motors developing 115 hp
Electric start
Raw water cooled

Electric Power

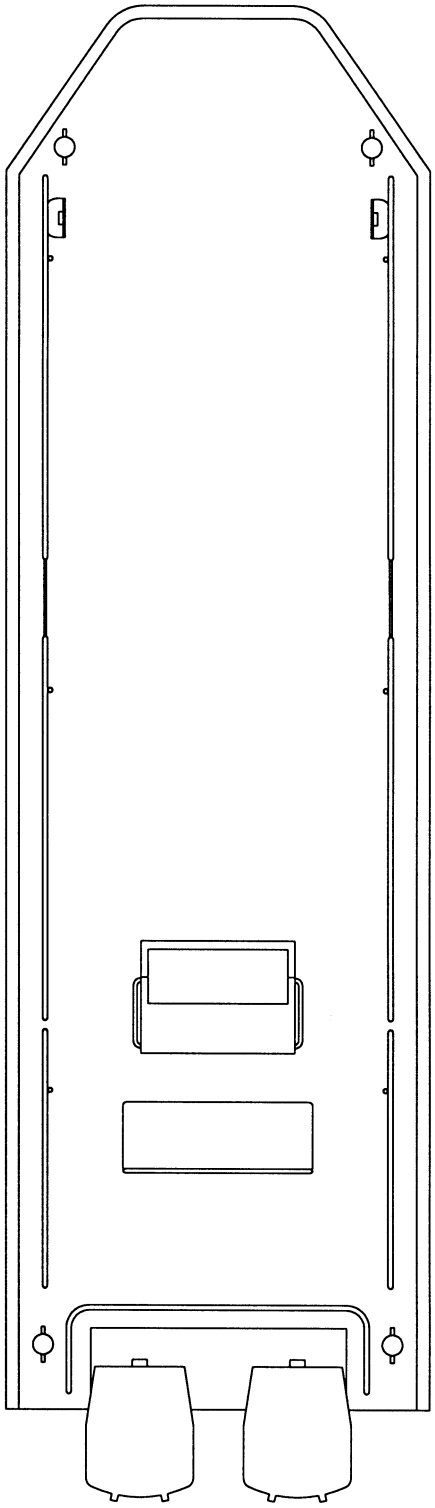
Engine mounted alternator producing 12 Vdc

Equipment

VHF radio ICOM - IC - M127



GREY SNAPPER 7 UTILITY BARGE (32-foot) Outboard Profile



GREY SNAPPER 7 UTILITY BARGE (32-foot) Main Deck Arrangement

ANCILLARY EQUIPMENT

A. MARINE WINCHES

1. Winch Mfg: GD Winch (one each)

Winch Drum: 36-in. core diameter
52-in. width
87-in. flange diameter

Bare drum:
Continuous line pull ..... 13,500 lbs
Continuous line speed ..... 150 ft/min

Full drum:
Continuous line pull ..... 5,500 lbs
Continuous line speed ..... 265 ft/min

Unit weight ..... 22,000 lbs
Unit length ..... 10 ft
Unit width ..... 12 ft
Unit height ..... 12 ft (less guard)

Power: 75-hp air-cooled diesel, coupled to a hydraulic transmission.

Can be installed aboard: - RANGER
- RANGE ROVER

2. Winch Mfg: SMATCO

Winch Drum: 33-in. diameter
36-in. width
35-in. flange depth

High gear:
Continuous line pull ..... 20,300 lbs
Continuous line speed ..... 180 ft/min

Low gear:
Continuous line pull ..... 40,600 lbs
Continuous line speed ..... 90 ft/min

Installed: On RANGE ROVER

Unit weight .....57,000 lbs
Unit length.....12 ft 6 in
Unit width .....7 ft 6 in
Unit height.....8 ft 8 in

Power: Hagglund 4170 radial piston high-torque motor coupled to a hydraulic transmission

3. Winch Mfg: Sea-Mac (one each)

Winch Drum: 36-in. diameter
60-in. width
60-in. flange depth

Line Pull: bare drum 125 ft/min
full drum 215 ft/min
bare drum 5,000 lbs
full drum 3,000 lbs

Unit length.....12 ft 0 in
Unit width ..... 7 ft 4 in
Unit height..... 6 ft 6 in

Power: 40 hp, 460 Vac
3 phase electric motor

Can be installed aboard:
- RANGE ROVER
- RANGER
- RANGEMASTER

NOTE: This winch is normally used for acoustic testing. DNM cable is mounted on drum. An empty drum is available.

4. Winch Mfg: TSE

Winch Drum: 24-in. diameter
60-in. width
39-in. flange depth

Line Pull: based upon 1-½ diameter rope
bare drum 1st layer 5,000
bare drum 1st layer 100 ft/min
4th layer 5,000 lbs
4th layer 135 ft/min

Unit length..... 10 ft 3-½ in
Unit width ..... 8 ft ½ in
Unit height..... 7 ft 4-½ in

Power: 30 hp, 444 Vac
3 phase, 60 Hz marine duty electric motor @ 3,600 rpm

Hydraulic pump at 27 gpm @ 2,000 psi

System has manual level wind

Can be installed aboard:
- RANGE ROVER
- RANGER
- RANGEMASTER

B. SILENT GENERATOR SET

GM 2-71N diesel-engine generator set.
Pneumatic tire-mounted trailer.
30 kW, 440 Vac, 3 ph, 48 Amps.

C. PORTABLE POWER DISTRIBUTION CENTER (SKID MOUNTED)

30 KVA Transformer
440 Vac 208/115 Vac

D. PORTABLE DAVIT (2 EACH)

750-lbs capacity
9 ft reach
7 ft 9 in. height
Available for use aboard:
- RANGE ROVER
- RANGER

E. STERN ROLLER, PORTABLE

2-in. width

48-in. diameter

10,000-lb capacity

F. STERN ROLLER, RANGE ROVER

7 ft 2 in. width

48-in. diameter

110,000-lb capacity

G. STERN SHEAVE, PORTABLE

48-in. width (max)

18-in. diameter

25,000-lb capacity